0060888

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

November 25, 2003

Mr. Roy Schepens
Office of River Protection
United States Department of Energy
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

Dear Mr. Schepens:

Re: Forty-Five (45) Days Extension to Review the Double Shell Tank (DST) Part B Permit Application, Revision Rev. 0b, DOE/RL-90-39, Submitted to the Washington State Department of Ecology on August 29, 2003

The Washington State Department of Ecology (Ecology) is reviewing the DST Part B Permit Application Rev. 0b and has determined that the application is significantly incomplete. This is disappointing after the investment of staff's time in the last year reviewing Notice of Deficiencies (NODs) from past DST applications with the United States Department of Energy, Office of River Protection (ORP) and its contractors. Ecology had hoped that this investment of staff's time, preceding the submittal of Rev. 0b, would clarify key elements necessary to provide a complete application, and also provide an opportunity for a timely response to your application.

Ecology has provided preliminary comments on areas where the DST Permit application is incomplete. The attached comment table is to give you the opportunity to address major deficiencies earlier in the process and is not intended to be a formal NOD submittal. Some of the major deficiencies include:

- Missing State Environmental Policy Act (SEPA) checklist
- Missing identification of analytical, testing, and sampling methods
- Missing detailed information that is required for a closure plan
- Lack of detail on leak detection
- Lack of characterization information regarding releases

Ecology will take an additional forty-five (45) days to complete a thorough review of the application. The revised schedule is attached. Ecology must receive a complete application and grant final permit status before waste from the DSTs is transferred to the Waste Treatment Plant.

If you have any questions regarding this letter, please contact, me at (509) 736-5707 or Jeff Lyon at (509) 736-3098.

Sincerely,

Brenda K. Jentzen

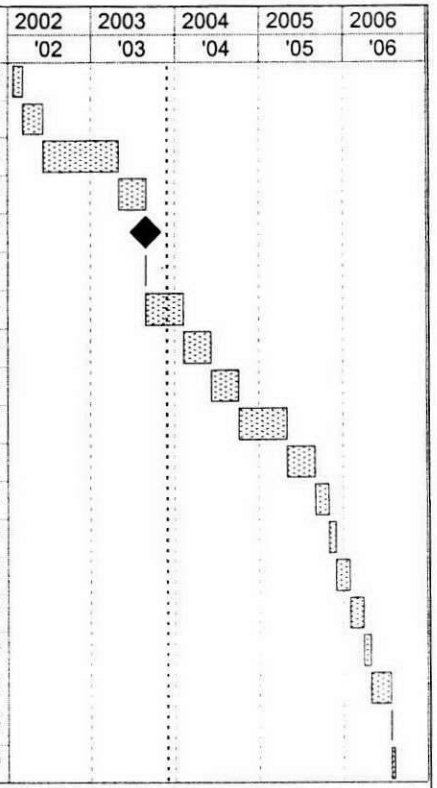
Brenda K. Jentzen
Permit Lead, Double Shell Tank System
Nuclear Waste Program

BKJ:nc
Attachments

cc w/attach: Richard McNulty, ORP
Administrative Record: DST and Tank Waste Storage
Environmental Portal, LMSI

cc w/o attach: Brad G. Erlandson, BNI
Edward S. Aromi, CH2M
Chris J. Kemp, CH2M
John A. Bates, FH
Todd Martin, HAB
Jackie L. Hanson, INNOV
Al W. Conklin, WDOH
John Cox, CTUIR
Rick Gay, CTUIR
Pat Sobotta, NPT
Russell Jim, YN
Al W. Conklin, WDOH
Ken Niles, OOE

ID	Task Name	Duration	Start	Finish
1	Internal CHG Disposition of NOD Comments	42 days	Mon 1/28/02	Sun 3/10/02
2	Information Discussions with Ecology to disposition Rev. 0 (1991) comments	90 days	Mon 3/11/02	Sat 6/8/02
3	Update DST Part B Permit Application	329 days	Sun 6/9/02	Sat 5/3/03
4	Certification Process CHG/ORP/RL	120 days	Sun 5/4/03	Sun 8/31/03
5	Target FFCA M-20 Milestone	1 day	Sun 8/31/03	Sun 8/31/03
6	Submit Part B Permit Application (Box 1)	0 days	Fri 8/29/03	Fri 8/29/03
7	Rev. 0b Ecology Review - Certified Application (Box 2)	165 days	Fri 8/29/03	Mon 2/9/04
8	Rev. 0b DOE Response (NOD Response Table) (Box 3)	120 days	Tue 2/10/04	Tue 6/8/04
9	Rev. 0b Ecology Review Response Table (Box 4)	120 days	Wed 6/9/04	Wed 10/6/04
10	NOD Workshop to Resolve Issues (Box 5)	210 days	Thu 10/7/04	Wed 5/4/05
11	DOE ORP/RL Issue Revision 1 (Box 6)	120 days	Thu 5/5/05	Thu 9/1/05
12	Rev. 1 Ecology Review/Issue NODs (Box 7)	60 days	Fri 9/2/05	Mon 10/31/05
13	Rev.1 Project Managers Issue Resolution (Box 8)	30 days	Tue 11/1/05	Wed 11/30/05
14	DOE ORP/RL Page Change Revisions (Box 9)	60 days	Thu 12/1/05	Sun 1/29/06
15	Ecology Prepare Draft Permit/Permit Modification and Completeness Review (Box 10)	60 days	Mon 1/30/06	Thu 3/30/06
16	Public Notification (Box11)	30 days	Fri 3/31/06	Sat 4/29/06
17	Public Review (Box 12)	90 days	Sun 4/30/06	Fri 7/28/06
18	Public Hearing (if requested) (Box 13)	0 days	Fri 7/28/06	Fri 7/28/06
19	Issue Permit or Permit Modification (Box14)	15 days	Sat 7/29/06	Sat 8/12/06



Project: DST Schedule
Date: Tue 11/25/03

Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Milestone
Rolled Up Progress
Split
External Tasks
Project Summary
Group By Summary

Washington State Department of Ecology
Preliminary Comments on
DST Part B Permit Application

No.	Position in Documents	Comments/Response	Regulatory Citation
1	Forward, Chapters 1,2,3,4,5	Delete the paragraph in the forward, chapters 1, 2, 3, 4,and 5 of the application discussing the Atomic Energy Act of 1954 and replace with: "Where information regarding treatment, management, and disposal of the radioactive source, byproduct material and/or special nuclear components of mixed waste (as defined by the Atomic Energy Act of 1954, as amended) has been incorporated into this permit, it is not incorporated for the purpose of regulating the radiation hazards of such components under the authority of this permit modification or chapter 70.105 RCW."	WAC 173-303-806(4)(xix)
2	Application Checklist	Remove or correct the application checklist that was submitted with the application. The checklist is inaccurate.	

No.	Position in Document	Comments/Response	Regulatory Citation
1	General	Provide a State Environmental Policy Act (SEPA) checklist that includes analyses of Double Shell Tank (DST) closure and post-closure or evidence that the Washington State Department of Ecology and the U.S. Department of Energy, Office of River Protection have agreed that an Environmental Impact Statement (EIS) is appropriate. The SEPA checklist is required to be submitted to Ecology with a permit application, unless Ecology and the permittee agree that an EIS is required, SEPA compliance has been completed, or SEPA compliance has been initiated by another agency. The Tank Waste Remediation System EIS did not address the full scope of the activities included in Rev. 0b of the Double Shell Tank Part B permit application (i.e., closure); therefore, additional analyses of the environmental and public health impacts of closing the DST farms must be addressed. Also, If DOE chooses to submit the 1991 SEPA checklist, the checklist will need to be updated to reflect the current facility.	WAC 173-802-060 (1)
	Examples	(Some examples of the deficiencies in the 1991 SEPA checklist are: Under A.8 Environmental information, no mention of the TWRS EIS and supplements. Under A.9 referenced to the Hanford Waste Vitrification Plant, the PUREX Permit, the B Plant Permit, and the Grout Facility permit should be omitted. Under A. 10, update the air permit. Update item A. 11 to omit disposal of LAW as grout in the vaults. Update item A. 11 to reflect transfer lines between areas, equipment to be removed from service, etc.)	

No.	Position in Document	Comments/Response	Regulatory Citation
1	Chapter 1 III. B Part A form 3, DST Pg. 2	Account for the difference between what was indicated on Rev. 10 and Rev. 11in Process Design Capacity amounts.	
2	III. C Part A form 3, DST Pg. 2, 2nd paragraph	Explain change in operational dates.	
3	III. C Part A form 3, DST Pg. 2 last paragraph	Account for differences in volumes.	
4	Part A form 3, DST Pg. 2, Tanks Table	Replace deleted tanks: 241-EW-151, 244-BX, 244-TX, 244-U, 244-A	
5	Part A form 3, DST Pg. 6	* Explain deletion of the 340 Complex and replacement with "tank farm" * Delete 1st bullet. Insert the following: "Supernatant and Transuranic. And all sludge that consist of neutralized cladding removal waste generating during Plutonium-Uranium Extraction (PUREX) Plant headend operations, and waste generated during the Plutonium Finishing Plant processing." * Reinsert "Leachate resulting from Hanford Facility land disposal surface impoundment operations." * Reinsert "Multi source leachate (F039) is included as waste derived from nonspecific source wastes F001 and F005."	
6	General	Resubmit the Part A using the new Part A form, in accordance with letter sent to Roy Schepens from Ron Skinnarland, dated October 22, 2003. The form is available at http://www.ecy.wa.gov/biblio/ecy03031.html	

No.	Position in Document	Comments/Response	Regulatory Citation
1	Chapter 2 General	Provide a Table that shows the DST Tank System with the following headings: Tank Farm, Component Id #, General Description, Date of Construction, Description of Tanks System equipment, Projected Final Disposition for Closure, Type of Environmental Monitoring, Operational Status (Active/Closed).	WAC 173-303-806(4)(a)(i)
2	Ch. 2, Pg.2-1 Paragraph 2	Revise the application to reflect the full scope of the activities to be conducted in the DSTs. The U.S. Department of Energy is requesting a permit to operate the post 2005 DST waste transfer system and that limited information will be provided about the pre-2005 system. Ecology notes that mention is not made of treatment and storage of tank waste in the tanks. The permit must address treatment and storage in the DSTs, as well as transfer of waste to the Waste Treatment Plant.	WAC 173-303-806(4)(a)(i)
3	Ch. 2, Pg. 2-1 Paragraph 2	Remove the following statement from the application, "Limited information on the Pre 2005 system is being provided for completeness sake and to identify systems for closure." No options are provided in the Dangerous Waste Regulations for incomplete descriptions of the facility because the permittee wishes to close parts of it while other parts continue operation.	WAC 173-303-806(4)(a)(xxiii)
4	Ch. 2, Pg. 2-1 Paragraph 6	Provide a detailed description of the 204 AR Waste Unloading Facility. The 204-AR Waste Unloading Facility is connected to the Tank Farms via an underground transfer line. That description is not complete because while underground lines from the 204-AR route waste to the Tank Farms, an underground line comes into the 204-AR to bring waste. In addition, the capability exists in the facility to remove waste from tanker trucks then treat the waste (raise the pH) and route it to the Tank Farms.	WAC 173-303-310 and WAC 173-303-395(6)
5	Ch. 2, Pg. 2-1 Paragraph 5	Expand the description of the DST tank farms to include ancillary equipment. Paragraph 5 describes the 6 DST tank farms as comprised of a certain number of tanks, connected by piping. This general description is not complete, because it does not include a reference to other ancillary equipment (e.g., in tank farm piping, receiver tanks, transfer valve pits).	WAC 173-303-806(4)(a)(i)

6	Ch. 2, Pg. 2-1 Paragraph 7	Remove the Atomic Energy Act (AEA) assertion from this chapter. Listing the U.S. Department of Energy's assertion with regard to the AEA in Chapter 13 is sufficient to allow Ecology permit writers to review the applicability. As stated elsewhere in these comments, the discussion of applicability of other State and Federal regulations is required to be included in the permit; however, this section is not appropriate. See comments on Chapter 13.	WAC 173-303-806(4)(xix)
7	Ch. 2, Pg. 2-1 Sec. 2.1.1 Paragraph 5	Provide Ecology information from the tank closure EIS showing any significant impacts to the environment and public health resulting from the closure of the DST components to be closed with the SSTs. Section 2.1.1, paragraph 5 asserts that certain DST components will be included in the SST Closure Plan and closed with the SSTs.	WAC 197-11-055(2)(c)
9	Ch. 2, Pg. 2-2 Paragraph 6	Describe cathodic protection systems in Chapter 2 and show on drawings. Ecology considers cathodic protection and ventilation as critical systems. Paragraph 6 states that cathodic protection systems and ventilation systems are not shown on drawings because they are supporting systems. The same paragraph contains an assertion that all DST systems are fully described in the permit application. Cathodic protection systems can be considered as part of the equipment used to provide external corrosion protection of tank systems; therefore, they must be described in the Part B application and shown on drawings.	WAC 173-303-806(4)(c)(v)
10	Ch. 2, p. Pg. 2-4 Sec. 2.1.2.2 Paragraph 5	Identify the location of transfer pipelines that carry waste from the DSTs to treatment and storage units in the 200E and 200W. Ecology is aware of construction efforts to route lines from the DSTs to the West Treatment Plant in the 200 East Area, but unaware of lines that transport waste FROM the DSTs to such units in the West Area.	WAC 173-303-806(4)(c)(iv)
11	Ch. 2, p. Pg. 2-5 Paragraph 4	Correct the statement in Paragraph 4 to state that 241-AZ-151 will not be addressed by June 2005 and inform Ecology of any other catch tanks that will not be removed from service by June 2005. Paragraph 4, catch tanks states that all catch tanks are non-compliant and will be removed from service after June 2005. Section 4.3.6 is referenced; however, the text in that section discusses the Project E-525 scope, catch tank/bypass, that identifies two inputs to the 241-AZ-151 that will remain in service after June 2005 and need to be addressed.	

12	Ch. 2, p. Pg. 2-6	Inform Ecology of plans to use the circulators, as well as impacts to operation that arise from leaving them in the tanks during waste retrieval. No statement is made about the use of the air lift circulators in the future, plans to remove the circulators, or the impact of those circulators out of service on the use of the DSTs.	
13	Ch. 2, p. Pg.2-6	Provide information on the condition of steam coils and impact on DST waste transfers.	
14	Ch. 2, p. Pg. 2-7	Clarify the uses of the 204-AR as planned after FFY 2005. Section 2.1.3 states that the 204-AR Facility can accept waste from tanker trucks or rail cars. The facility as currently configured does not accept waste from rail cars, although it has in the past. It is unclear if this description is intended to notify Ecology that 204-AR will be receiving waste via rail cars after Federal Fiscal Year 2005.	
15	Ch. 2, p. Pg. 2-8	Describe the mechanism used to adjust the waste pH (injection during transfer to the DSTs). Sec. 2.1.3 states that the pH of the tank waste is adjusted when waste is at a pH of 12 or less to meet the acceptance criteria of the DSTs.	

No.	Position in Document	Comments/Response	Regulatory Citation
1	Chapter 3 Appendix 3A Page 12, Section 3.0	Identify the parameters for each dangerous waste, or non-dangerous waste. Table 3-1 does not identify specific analytes.	WAC 173-303-300 (5) (a)
2	Appendix 3A Pg. 13, Section 3.4	Identify all the waste codes accepted in the DST system. The DST system accepts more than ignitable and reactive waste. Sec. 2.1 states that all waste currently in the DST system have been assigned the same dangerous waste codes. All the codes identified in the DST system Part A, Form 3 Permit Application apply.	WAC 173-303-395
3	Appendix 3A Pg. 19, Section 4.0	Identify sampling methods. Reference is made to maintaining sampling documents in the DST operating record, however, the regulation and general facility RCRA permit condition II.D.3, requires that the methods for obtaining representative samples for analysis be identified in the WAP.	WAC 173-303-300(5) (c)
4	Appendix 3A Pg. 19, Section 4.1.2	Identify specifically what document or documents control sampling. The first sentence states that sampling is controlled by the issuance of tank-specific SAPs; the statement is later made that in some instances, a SAP is not issued. Section 5.2 states that the waste stored in the DST system will follow the methods specified by applicable DQOs.	WAC 173-303-310 and WAC 173-303-395(6)
5	Appendix 3A Pg. 22, Section 5.0	Provide testing methods. Testing methods have not been identified.	WAC 173-303-(5)(b), 110 (2)(a)
6	Appendix 3A Pg. 23 Sec 6.1	Since verification of every waste stream consists of initial sampling and analysis of all compounds on the list of analytes and periodic sampling and analysis to verify the waste has not changed; what analytical procedures and QA/QC protocol is used to verify this?	WAC 173-303-300(5)(b)(c)
7	Appendix 3A Pg.23 Sec 6.1.2	For verification of waste received by the DST system, what is the frequency of sampling when a discrepancy is identified?	WAC 173-303-300(5)(d)
8	Appendix 3A Pg. 23 Sec 6.0	What are the sampling and analysis requirements for verification of incoming wastes since the greatest potential for compatibility problems is for mixing different incoming waste with waste already in the DST?	WAC 173-303-(5)(b), 110 (2)(a)
9	Appendix 3A Pg. 22 Sec 5.2	List the analytical methods as required by the WAC.	WAC 173-303-110
10	General	Add text and references (WAP) regarding the DQO for Tank Farms Waste Compatibility Program	

No.	Position in Document	Comments/Response	Regulatory Citation
1	Chap. 4, Checklist Item D-2a	Provide the design and construction standards used to construct both the primary and secondary DST shells. Clarify if all the construction standards were followed, to include leak testing of both the primary and secondary shells. Ecology assumes the other informational requirements of the permit will be included in the integrity assessment (IA), as stated in the I. A. plan.	WAC 173-303-806(4), -640(2)(c)
2	Chap. 4, Checklist Item D-2b	The detail in this section is insufficient and incomplete for accessing secondary containment and leak detection for the transfer system. Present the following information of each transfer line segment: * line designation * profile and mapview of pipe run (as built or design drawings) * elevations of the endpoints of the line segments * specific details on leak detector location, type, and spacing * leak volume and rate needed to trip leak detector Information is also needed on pipe life, e.g., number or leaks or pipe segment failures as a function of time. The proponent needs to establish or demonstrate what is the "minimum detectable leak to the environment" given the proposed design and operation of each individual subsystem. This is the quantification of the word "any" in the regulations which defines the system goal: to "...detect any leak...(to the environment)...over the active life of the tank system?"	WAC 173-303-806 (4) (c) (vii)
3	Chap. 4, Checklist Item D-2b, D-2a(2)	Define the type of assessment performed on the drain system and pits to determine for leak tightness. Project W-314 did appear to have leak tested portions of the pits after they were coated with polyurea, but this testing did not seem to extend to the drains. If not, what investigations will be performed to ensure the integrity of the drains and pits?	WAC 173-303-806(4)(c)(vii)
4	Sec. 4.1.5.4	Provide detail on the design and installation of the cathodic protection system. The text does not describe whether the tanks are protected, or just the transfer system. The text does not include any information on the system history that impacts design and life.	WAC 173-303-310 and WAC 173-303-395(6)

5	Sec. 4.1.11, Checklist Item D-2f	Describe the design of the tank system to prevent escape of Extremely Hazardous Waste (EHW) (by fugitive emissions).	WAC 173-303-806(4)(c)(x), -640(10)
6	General	The application will need to be updated to reflect any operational changes that may occur during the application review cycle. As an example, when/if the operation limit for the DST level is re-rated an update will need to be submitted for the application to reflect the change.	

No.	Position in Document	Comments/Response	Regulatory Citation
1	Chapter 5, General Comment	Move all postclosure groundwater monitoring descriptions into chapter 11. The text states: "This chapter provides the postclosure groundwater monitoring system for those portions of the DST system which may be closed as a regulated (landfill) unit." All postclosure care groundwater monitoring activity descriptions should be described in Chapter 11 (Section 11.16 as currently drafted).	WAC 173-303-640 (8) WAC 173-303-610(8)
2	Chapter 5 and Chapter 11 (Section 11.6), General Comment	The text must describe how portions of the DST System that are "closed" before the entire DST system will be monitored to satisfy postclosure monitoring requirements. The postclosure monitoring upon "closure" of a DST system component must be described.	
3	Chapter 5, General Comment	Describe how the impacts of releases will be assessed and include how the releases will be characterized. Also, provide the basis for determining the need for groundwater monitoring as tanks and ancillary equipment are closed. Requirements pertaining to corrective action may be found at WAC 173-303-646.	WAC 173-303-646
4	Chapter 5, General Comment	Include a statement that a detailed description of groundwater monitoring will be developed that describes the procedures and/or technologies when postclosure monitoring is instituted.	
5	Chapter 5	Reword in Chapter 5 where the application states that the ground water monitoring will be required "if waste is left in place" to " if closure does not meet required closure performance standards."	
6	Chapter 5, General Comment.	The beginning of the chapter asserts that United States Department of Energy has sole authority over radionuclides and that any radionuclide information presented in Chapter 5 may not be used to create conditions or other restrictions set forth in any permit. Delete the paragraph in chapter 5 of the application discussing the Atomic Energy Act of 1954 and replace with the language provided earlier on page 1. Ecology notes, that the presence of radionuclides in mixed waste may be implicated in managing the dangerous waste components of such waste without constituting regulation of the radionuclides themselves. For examples, tracking radionuclides may serve as a tool for monitoring whether releases of mixed waste have occurred. While such an approach would not constitute regulation of the radioactive component of mixed waste for its hazard, it would create an enforceable provision related to that component.	

7	Chapter 5, General Comment	The term "DST sites" is repeatedly used. Provide a definition of "DST sites" or use another term that may be understood.	
8	Chapter 5, Section 5.4, General Comment	Re-write the text to include statements regarding "releases". The section indicates there have been no leaks that have been detected from the DSTs and that no leaks are anticipated. The distinction between leaks and releases should be made. Appendix 11A identifies known releases from the DST system. Therefore, the statement that there have been no "leaks" and no "leaks" are anticipated may be considered to be misleading.	WAC 173-303-646
9	Chapter 5 Section 5.4, General Comment	The section indicates there have been no leaks that have been detected from the DSTs. The text should be written to specify "DST system" which includes DST ancillary equipment (i.e. piping, DCRTs, etc.)	
10	Chapter 5, Section 5.4.1.3.1 and Table 5-3	Delete Table 5-3 and re-write Section 5.4.1.3.1 to identify that contaminant fate and transport conceptual models have not been agreed upon. Also, re-write Section 5.4.1.3.1 to identify that contaminant concentrations measured in groundwater beneath waste management areas in the 200 East and 200 West Areas (i.e., field observations) do not agree with mathematical output used in the application. The vadose zone travel times are not supported by field observation. The conceptual model supporting the mathematical model used in the application is not adequate to explain contaminant concentration measurements in groundwater. For example, uranium (long considered immobile) is found beneath the B-BX-BY waste management area after only decades.	
11	Chapter 5, Section 5.5.3.2.2	The text should indicate that the first sampling event will occur "at a minimum of 1 year before closure of the DST system and/or DST system components".	WAC 173-303-645 (3)
12	Chapter 5 Section 5.5.4.1.5 General comment	Well purging is described. It should be noted that the purging method described is that which is currently being followed. However, if low-flow sampling capability is available for the DST System groundwater monitoring wells, purging procedures may not be as described. Include a notation that the well purging procedures described are for existing flow-rate sampling capabilities.	

No.	Position in Document	Comments/Response	Regulatory Citation
1	Chapter 6, Section 6.2.3.4	Include text to reflect when and how often the alarm panel inspection occurs. Referencing the appropriate appendix would suffice	
2	Chapter 6, Section 6.3.2	Include text to reflect when and how often there is visual inspection of the emergency and safety equipment	
3	Appendix 6A	Provide a table of contents for Appendix 6A.	
4	Chapter 6, Checklist Item F 1a(2)	Clarify what warning signs, if any, are associated with the DST system that is located outside of enclosed DST system areas.	WAC 173-303-310 and WAC 173-303-395(6)
5	Chapter 6, Checklist Item F 3a(4)	Clarify how sufficient flow, volume, and pressure for water and foam was determined, and if this was based upon hazard analysis. Reference the document where the hazard analysis was done. With regard to building sprinkler systems: provide specific details on the location of these systems (which buildings). Clarify if the facility has an approved water system plan as required under WAC 246-290 and the Safe Drinking Water Act.	WAC 173-303-806, -340(1), (2)
6	Checklist Item F 4(a), (b)	Describe how operations will prevent run-off from dangerous waste handling areas to other areas of the facility or environment during operations (e.g., large equipment removal and replacement). Examples would include spray ring devices for decon, flexible receiver to bag large waste out, etc.	WAC 173-303-806(4)(a)(viii)
7	Checklist Item F 4d	Clarify if the fire water system for fire hydrants has backup power.	WAC 173-303-806(4)(a)(viii)(D)
8	Checklist Item F 5	Clarify whether the tank system is already storing incompatible waste that generate flammable and toxic gases and mists (vapors). Clarify if the degree of toxicity of the trapped gases in the waste as based on characterization and toxicological assessment of this specific phase. Then describe in detail how WAC 173-303-395(1)(b)(i), (ii), (iii), and (iv) will be complied with, including controls for flammability and controls to prevent uncontrolled toxic emissions.	WAC 173-303-100, WAC 173-303-395(1)(b)(i), (ii), (iii), (iv), WAC 173-303-640(10)

9		Clarify how the system will be designed and operated to prevent uncontrolled mists and gases that threaten human health.	WAC 173-303-640(10), WAC 173-303-395(1)(b)
10	Checklist Item F 2d(2)(b), F-4	For tanks and piping, if the primary containment starts leaking what immediate actions does USDOE intend to take? Besides the obvious initial action to shut down and prepare for or initiate emergency pumping, what other actions are planned? Clarify if the WAC requirement for immediate cleanup and repair, or closure of the failed component will occur. Clarify whether "interim stabilization" and "isolation" will occur. If the option to interim stabilize and isolate the component is planned, how will it be determined no contamination has occurred outside of secondary containment? Clarify if there are components of the SST system that were previously classified as DST components, but have failed, and were not immediately cleaned up. For each transfer segment, tank, pit, and drain show how the component will be operated to detect and prevent or mitigate "any" leak to the environment over the operating life of the facility. What is the minimum detectable leak to the environment under current design and operation strategies?	WAC 173-303-640(7), WAC 173-303-806(4)(a)(viii)

No.	Position in Document	Comments/Response	Regulatory Citation
1	Chapter 7 7.2.5.1	Replace 7.2.5.1 with the following text. "During the course of receiving dangerous and/or mixed waste at a Tanks Farm Facility, an unanticipated event could be discovered resulting in a discrepancy concerning the waste. Damaged or unacceptable shipments resulting from onsite transfers are not subject to WAC 173-303-370; however, discrepancies must be resolved in order to maintain proper records. Regardless of whether the waste is received as an off-site shipment or onsite transfer, the following actions are taken: 1. Operations management is notified of the damaged or unacceptable waste to be received. 2. If the discrepancy results in a spill or release, actions described in Section 7.2.5 are taken. 3. The generating organization is notified of the discrepancy. 4. An operations representative, in conjunction with the generating organization, determines the course of action to resolve the discrepancy.	

No.	Position in Document	Comments/Response	Regulatory Citation
1	General	Identify On-the-Job Training (OJT) needed and a description of the process/procedures for positions at Tank Farms. OJT is not listed.	

No.	Position in Document	Comments/Response	Regulatory Citation

No.	Position in Document	Comments/Response	Regulatory Citation
1	Chapter 11 General	The closure chapter is missing the detail required in a closure plan. See regulatory citations noted.	WAC 173-303-610 (3) & (8), WAC 173-303-640
2	General	Too many references to the SST system. This is an application for the DST system and it must meet required closure regulation and description for the DST system.	WAC 173-303-610 (3) & (8), WAC 173-303-640
3	General 11.0	Change text to include all required Washington Administrative Code (WAC) citations. Closure activities will include testing of contaminated environmental media to determine the extent of contamination according to WAC 173-303-610(2)(b). Soil clean up standards will comply with WAC 173-303-610.	WAC 173-303-610
4	Pg. 11-1, line 8	Correct text to state Appendix 11 B. Appendix 4E does not identify components to be taken out of service on or before June 30, 2005.	
5	Pg. 11-3, line 4-9	Clarify for enforceability. Poorly written, unclear.	
6	Pg. 11-3, line 31, 32	The application states that some areas of soil contamination associated with leaks from ancillary equipment probably will require landfill closure. Document in the appendix of releases the leaks that have occurred from the ancillary equipment which may require landfill closure.	
7	General 11.4	Give details as to how equipment that is to be isolated will be managed. (e.g. leak detection, frequency of inspections performed, administrative or engineering barriers, etc.) Provide justification for isolation vs. closure of the ancillary equipment. The isolation of DST system components (tanks, pipelines, ancillary equipment) is a closure action.	WAC 173-303-610 (3) (a)
8	Pg. 11-4, line 2	Correct line 2. Closure for the 204-AR WUS will include meeting tank standards (see section 11.4.1). No Section exists called 11.4.1	
9	11.5.1.1	Insert all the information required by the Washington Administrative Code. This section on the 204-AR Waste Unloading Station does not contain enough information to meet the requirements of WAC -610 (3) (a).	WAC 173-303-610 (3) (a)

10	General	Include all Washington Administrative Code citations in the text for closure. All DST components will be closed in accordance with WAC 173-303-610 (2) - (6), -640(8), and -806 (4) (a) .	WAC 173-303-610 (2) - (6), WAC 173-303-640(8), WAC 173-303-
11	General 11.5.4	Clarify the regulatory requirement that section 11.5.4 is meeting. The title on the section is confusing. Is this section describing the removal of tanks and soil under tanks?	
12	General 11.5.6	Re-write the text to specify that the postclosure care period will occur for "a minimum of 30-years" as determined by Ecology at closure. The text identifies that the land disposal units will have a "functioning groundwater monitoring system during the 30-year postclosure period." WAC 173-303-610(7)(b)(ii) provides for extending the postclosure care period if it is found that the extended period is necessary to protect human health and the environment.	WAC 173-303-610 (7)
13	General 11.7	Provide details with diagrams on the transferring of waste to the Waste Treatment Plant (WTP). This section does not address the removal of DST waste to the WTP. How will the waste be removed from the DST? The retrieval information describes a SST retrieval.	WAC-610 (3) (a) (iv)
14	General	Provide a schedule for closure of the DST systems including ancillary equipment both pre and post 2005 system components.	WAC 173-303-610 (3)(a)(vii)
15	General	Provide a closure strategy for pipelines and other ancillary equipment.	
16	General	Provide a decision flow chart for closure and postclosure of the DST system to include all ancillary equipment including pipelines.	

No.	Position in Document	Comments/Response	Regulatory Citation

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No.	Position in Document	Comments/Response	Regulatory Citation
1	Appendix 11A, Known Releases, Page APP 11A-1, lines 3-4	Re-write the sentence to indicate that there are no "known" releases from the Double Shell Tanks or 204-AR Waste Unloading Station (WUS). The text states: "No liquid releases have occurred from the DSTs or 204-AR WUS." A more accurate statement is: "No known liquid releases have occurred from the Double Shell Tanks but releases have occurred from the DST system (ancillary equipment)." Unless the leak detection capabilities are agreed to satisfy WAC 173-303-400(3) and, by reference, 40 Code of Federal Regulations (CFR) 265.193 standards, the statement, as written, is not supported.	806(4)(a)(xxiii) and (xxiv)
2	Appendix 11A, Known Releases, Page APP 11A-1 – 4	Provide topographical maps which show the location of all known releases. While the Waste Information Data System (WIDS) provides Washington State Plane coordinates as the location for the various unplanned releases, it is unknown if the unplanned releases are located within DST system boundaries.	806(4)(a)(xxiii) and (xxiv)
3	Appendix 11A, Known Releases, Page APP 11A-1 – 4	The appendix lacks descriptions of contamination characterization. At a minimum, for each release, the following information should be provided: 1) location of the release on a topographic map 2) extent of the release and the dangerous constituents present 3) results of sampling and analysis of the release or its source 4) impacts or potential impacts to humans or the environment 5) the period over which the release occurred 6) any other information that supports the corrective action decision-making process	806(4)(a)(xxiii) and (xxiv)
4	Appendix 11A, Known Releases, Pages APP 11A 1 - 4 General Comment	Included in site description/comment of the WIDS information (general summary reports) are indications that over the years there have been multiple releases associated with DST system components which are documented. Appendix 11A should include a description of such documentation which includes references where the information may be retrieved.	806(4)(a)(xxiii) and (xxiv)

5	Appendix 11A, Known Releases, Pages APP 11A 1 – 4 General Comment	Included in site description/comment of the WIDS information (general summary reports) are indication that over the years there have been multiple releases associated with DST system piping. Information obtained during pipe testing indicating pipe failure (i.e., integrity assessment, standard operating procedures, system readiness testing, etc.) must be provided, with references, in Appendix 11A. In addition, for pipe sections that have failed testing, the location of the failed pipe testing should be identified on a map as a location of a potential release.	806(4)(a)(xxiii) and (xxiv)
6	Appendix 11A, Known Releases, Pages APP 11A 1 – 4 General Comment	A review of the WIDS information (general summary reports) indicates that many of the sites of releases are not specifically marked or posted. Similarly, the WIDS information often indicates that the Solid Waste Management Unit (SWMU) occurs inside a marked or posted area and the unplanned release is not marked or posted. A map showing the locations of the unplanned releases must be submitted. If such information cannot be retrieved, a schedule for characterizing contamination for purposes of delineating the SWMUs must be included in Chapter 11.	806(4)(a)(xxiii) and (xxiv)
7	Appendix 11A, Known Releases, Pages APP 11A 1 – 4 General Comment	Due to the lack of SWMU characterization information, radiological survey information is requested for the entire DST system. This information will reduce the need for extensive soil sampling for contaminants of concern. If a database exists which tracks radiological surveys associated with SWMUs, the database should be identified in Appendix 11A. Also, if a database exists which tracks radiological surveys associated with SWMUs the information available regarding the DST system must be summarized in Appendix 11A.	

No.	Position in Document	Comments/Response	Regulatory Citations
1	General - Appendix 11 B	Justify DST components located within the boundaries of the DST having a final disposition in the SST closure plan.	